REMARKS

Claims 1-5 are retained without amendment.

Claim 6 is rewritten in what is believed to be proper U.S. form, as new claim 7.

It is not believed to be necessary to amend claims 1-5, for the following reasons:

The Official Action rejects claim 1 as being unpatentable over Applicant's Admitted Prior art (AAPA) in view of DAW et al. 4,558,892.

i) Applicant's Admitted Prior Art (AAPA) is defined in the present patent application on page 1, lines 8-22.

AAPA discloses a motor-vehicle front crosspiece, able to constitute at least one duct, of the type comprising at least two half-shells assembled onto two facing outer longitudinal edges, by local mechanical-linking means.

This prior art corresponds to the features recited in the preamble of Claim 1.

ii) DAW et al. discloses a duct assembly system 10 depicted in Figure 1, joining the adjacent ends of two duct rectangular sections 11 which have each four intersecting duct walls 20 (column 3, lines 26-31).

These walls are also illustrated in Figures 2-4 and 6.

As further mentioned in column 3, lines 31-42, two elongated ribs 14 and 16 are formed on each wall 20 adjacent the distal end edge 13 thereof, as in Figures 4 and 6.

The duct assembly system 10 also includes, for each duct section 11, four angle member connectors 20, respectively associated with the duct walls 12, and four corner members 40, respectively associated with the corners of the duct section 11 (column 3, lines 43-48) as in Figures 2 and 5.

Each connector 20 (Figures 4 and 6) includes two flanges 30 and 35 (Figure 4) provided respectively with projecting ridges 31, 32 and 37, 38 (column 4, lines 3-68).

As mentioned in column 8, lines 28-34, the interlocking of the ribs 14 and 15 of the duct walls 12 with the ridges 32 and 38 of the connector flanges 30 and 35 provides a secure interlocking of the parts.

Moreover, as mentioned in column 4, lines 35-44, column 5, lines 1-5, and column 8, lines 44-46, a body 39 of mastic sealant is provided (Figure 4) to cooperate with the edge 13 of the duct wall 12, thus providing an airtight seal between the parts.

DAW et al. further specifies the use of a gasket 60 in some applications (column 7, line 7 to column 8, line 15; column 9, lines 9-17; column 9, lines 30-35).

As in Figures 2 and 5 and particularly mentioned in column 7, lines 7-24, the gasket 60 intersects the planes of the duct walls 12 at the corners of the duct sections 11 and is positioned so that the corner portions of the duct wall end edges

13, which project beyond the ends of the connectors 20, engage the gasket 60 to prevent leakage at the corners.

Thus, DAW et al. discloses several leaktightness means in connection with the junction of two end duct walls.

b) i) Although DAW et al. discloses a convex/concave deformation (ribs 14 and 15) on each of the adjacent ends of duct walls 12 (Figure 4), this deformation however performs no leaktight function.

As a matter of fact, as has been explained above, "the interlocking of the ribs 14 and 16 of the duct walls 12 with the ridges 32 and 38 of the connector flanges 30 and 35 provides the secure interlocking of the parts" (column 8, lines 28-32).

Farther on (column 8, lines 40-44), it is also mentioned that "the gripping engagement of the duct wall 12 by the flanges 30 and 35 after mounting of the corner members 40 is sufficiently tight to prevent accidental disassembly of the parts, considerable force being needed to disengage them."

Thus, it is clear that the ribs 14 and 15 have only a mechanical function.

ii) Moreover, this interpretation is reinforced by the fact that there is a body 39 of mastic sealant (Figure 4) in which the distal end edge 13 of each duct wall 12 is embedded in the body 39 to provide an airtight seal between the duct wall 12

and the angle member connector 20 (column 5, lines 1-5; column 8, lines 44-46).

If the interlocking of the ribs 14 and 15 of the duct walls 12 with the ridges 32 and 38 of the connector flanges 30, 35 had effectively a leaktightness function as alleged by the Official Action, then it would not have been necessary to further include mastic sealant bodies 39 and 39a to provide an airtight seal between the duct sections 11.

iii) Furthermore, a gasket 60 is provided to prevent leakage at the corner portions of the duct wall end edges 13 between the connectors 20 in Figures 2 and 5 (column 7, lines 7-24).

It is also mentioned in column 8, lines 11-15 that "the gasket 60 serves to cooperate with the mastic sealant bodies 39 and 39a to provide an airtight seal around the entire perimeter of the duct sections 11."

This also highlights the fact that the ribs perform only a mechanical function.

iv) It is also to be noted that the paragraph quoted in the Official Action (column 9, lines 1-15) to support the argument according to which "the use of such convex/concave deformations is advantageous in preventing leakage in pressurized systems by allowing for bowing of the walls of the duct without

compromising the integrity of the seal" is not consistent with this argument.

As a matter of fact, this paragraph mentions that the airtight seal between duct walls 12 of both duct sections 11 is obtained by the embedding of the distal end edges 13 of the duct walls 12 into the bodies 39 of mastic (column 9, lines 6-9) and also by the presence of the mastic sealant body 39a in the trough between the walls and which prevents air from flowing therein (column 9, lines 13-17).

However, this paragraph does not mention nor suggest that the leaktightness is obtained by the use of convex/concave deformations.

v) Taking into account the above, the leaktightness means of the duct sections 11 do not consist of at least one continuous, convex or concave deformation as it is recited in present Claim 1.

c) Furthermore, it is to be noted that the duct assembly system 10 in DAW et al. makes provision for joining the adjacent ends of two duct rectangular sections 11 and not for joining the longitudinal edges thereof as in present Claim 1.

d) In addition, present Claim 1 is directed to a method of manufacturing a tubular element according to which the continuous convex or concave deformation of the leaktightness

means is formed, simultaneously on each of the facing outer longitudinal edges of the two half-shells.

However, in DAW et al., there is no disclosure of simultaneous operations for deforming the respective duct walls 12 of each duct section 11.

e) Moreover, the present claimed invention is much easier to implement than the solution taught by DAW et al.

This is because in the present invention the airtight seal between the two half-shells is obtained only by forming a continuous, convex or concave deformation on each of the facing outer longitudinal edges of the two half-shells, whereas in DAW et al., it is necessary to use additional material such as several mastic sealant bodies 39 and 39a and connectors 20 as depicted in Figure 4.

The solution proposed in DAW et al. also requires that different operations be performed to obtain an airtight seal (manufacturing complex components such as connectors, placing mastic sealant bodies in the connectors and inserting the edges 13 of the duct walls into the bodies 39) instead of only one operation for deforming the half-shells in our Claim 1.

Furthermore, the airtight seal is obtained in DAW et al. separately on each duct wall 12 through the use of intermediary components (connectors 20 and mastic sealant bodies 39 and 39a) as the duct walls 12 are not directly in contact to each other,

whereas in the present invention leaktightness is obtained simultaneously on the two longitudinal edges of the two half-shells that are directly in contact to each other.

f) Thus, given the above differences between the claimed invention and DAW et al., even when combining the latter with AAPA, a person skilled in the art would not arrive at the features of Claim 1.

FISCHER merely discloses metal stamping, which of course is so well known as hardly to require a reference to support that fact. However, FISCHER does nothing to overcome the drawbacks of the basic combination of references, as set forth above.

New claim 7 embodies the structure produced by the method of the earlier claims. Just as this method is not taught by the applied references, so also the resulting structure cannot be taught by them, again for the reasons given above.

As the Examiner correctly points out, the method of manufacture cannot patentably vitalize a claim drawn to the product. On the other hand, as is true in the present application, the structural features set forth in claim 7 are not to be found in the applied references or any proper combination thereof, for the reasons set forth above.

In view of the present amendment and the foregoing remarks, therefore, it is believed that the present application

has been placed in condition for allowance, and reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 CFR §1.16 or under 37 CFR §1.17.

Respectfully submitted,

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